Fig. 2 is a graft representing the base peak in MS/MS spectra with wideband activation of the protonated molecule (780.8 +/- 18) at 45% collision energy which fragmentates both the parent mass as well as the ammonium complex 60 651.1.

Detailed Description of the Preferred Embodiments--.

IN THE CLAIMS

Please amend the claims in accordance with the attached marked-up pages. A clean copy of the amended claims is also enclosed.

REMARKS

The above amendments were made to place the application into proper United States Patent Format.

Respectfully Submitted,

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1. On-line detection method comprising the on-line coupling of the effluent of a fractionation step to a mass spectrometer, which method comprises the addition of a controlled amount of an affinity molecule to said effluent, whereby the affinity molecules bind analytes in the effluent, followed by a separation step using a restricted-access support, whereby the analyte-affinity molecule complex is permeated, followed by a suitable dissociation step to dissociate the analyte-affinity molecule complex, followed by a second separation step in which the dissociated analyte and affinity molecules are separated, followed by detection of the analyte using the mass spectrometer.

2. On-line detection method according to claim 1, in which the second separation step is carried out using a restricted-access support, in which the affinity molecule is retained, followed by elution of the analyte from the restricted-access support using a suitable carrier stream, and directing the eluted stream to the mass spectrometer.

3. On-line detection method according to claim 1, in which the second separation step is carried out using a hollow fiber

support, whereby the analyte is permeated and the permeate is directed to the mass spectrometer.

4. (amended) On-line detection method according to ~~any of the preceding claims~~ claim 1, in which the dissociation step is a low pH shock, contacting with a high ionic strength solution, contacting with an organic solvent and/or contacting with a chaotropic reagent.

5. (amended) ~~Method~~ The method according to ~~any of the preceding claims~~ claim 1, in which the fractionation step is a liquid chromatography separation, a capillary electrophoresis step or a combinatorial chemistry system, which is optionally followed by a separation step which removes the high molecular weight background.

6. (amended) ~~Method~~ The method according to claim 5, in which the liquid chromatography separation step is a HPLC, a reversed phase HPLC, a CE, a CEC, a IEF or a MEKC step.

7. (amended) ~~Method~~ The method according to ~~any one of the preceding claims~~ claim 1, in which the mass spectrometer is of the type chosen from the group consisting of electrospray

ionization type, atmospheric pressure ionization type, quadrupole type, magnetic sector type, time-off flight type, MS/MS, MS^n, FTMS type, ion trap type and combination thereof.

8. (amended) ~~Method~~ The method according to ~~any one of the preceding claims~~ claim 1, in which the mass spectrometer is set to detect ions of a selected single m/z trace, selected multiple m/z traces, in scanning mode or any sequential mode.

9. (amended) The method ~~of any of the preceding claims~~ according to claim 1, wherein the affinity molecule is an affinity protein.

10. (amended) The method ~~of any of the preceding claims~~ according to claim 1, wherein the affinity molecule is an orphan receptor.

11. (amended) Compound detected by the method of ~~any one of the preceding claims~~ claim 1.

~~12. The use of a compound of the preceding claims as a ligand for affinity molecules.~~